

**Political Ecology and the Population Dynamics and Supply Systems Model**  
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Dear Colleagues,

I wish to contribute a cursory comparison between political ecology and the proposed population dynamics and supply systems (PDSS to reduce typing) model based on the background paper and contributions from Susana, Diana, Alex and Alexandra yesterday.

I see considerable similarities between the socioecological, problem-based and materialistic focus of the PDSS approach and political ecology. In fact looking at the "system elements" that the PDSS allowed Alexandra to tease out in her interrogation of water supply and demographic shrinking in Germany (and as indicated in the PDSS diagram, Fig 3 in the concept paper, p.10), add a little more (explicit) human and non-human agency, make the multi-scalar nature of the socioecological dynamics more explicit, and pair down on systems language, Alexandra's study could pass for political ecology analysis.

Political ecology, as pointed out in the concept paper consists of a theoretically loose collection of holistic approaches that make more explicit how multiple and interacting political (social, cultural, political, economic, institutional) and ecological processes operating at multiple and sometimes incongruent geographic and temporal scales, shape local environmental problems and affect the options (opportunities or obstacles) available to local decision makers to resolve these problems. Regional political ecology has also been called third world political ecology because of its original focus (like population-growth narratives) on the developing world, and use of the local land user as the entry point. One assumption of an early strand of political ecology - and a source of common critique - is assigning blame for many local environmental problems to larger scale forces, such as government, national and international policies, capitalism, and macro-economic factors and market forces, and therefore portraying local people as victims rather than active agents.

Instead of seeking to simplify our complex socioecological world with linear theories, such as the Malthusian theory of population, the tragedy of the commons thesis, and some equilibrium ecological theories (e.g. carrying capacity narratives), political ecologists respect and seek to embrace the complexity. They often avoid the reduction

of demographic dynamics into population growth by also considering such other dynamics as spatial patterns, mobility, and household composition and life trajectories. Even when population growth is a factor, they often embed it within a broader context where the relationship between population and environmental degradation (or change) is almost always mediated by other factors.

While there are frequent breakouts of debate as to whether there is enough politics or enough ecology in political ecology, the intention is a focus on the dialectical relationship in which social factors affect environment change even as the change in turn affects human options and behavior. Still, there are many themes or areas of focus in political ecology. They include the link between marginalization and environmental degradation, an actor-oriented focus on the impact of differential relations of power on resources access and use, a materialistic turn over “the evils” of capitalism and neoliberalism, gender dimensions of socioecological problems, and a liberatory and social justice turn to political ecology through social movements. Thus, the conflation of population into users under the proposed PDSS model would fit more closely with the actor-oriented focus of political ecology.

In sum, the proposed PDSS model is very similar to political ecology in its problem-based focus on mutually constitutive dynamics of nature and society, and focus on the resource user as the entry point. Differences come mainly in the form of political ecologists’ more explicit focus on scale and likely avoidance of use of the term “system” for its potential connotations to “closed” or ecological equilibrium dynamics.

I look forward to further thoughts on this take.